



The **Blurb**



Newsletter of The Phil-Mont Mobile Radio Club

60 Years of Public Service, 1949 to 2009

Volume 59 Number 7

www.phil-mont.org

July 2009

Happy Birthday USA



**“The Unanimous Declaration
of the Thirteen United States of America”**

Adopted by congress July 4, 1776

Uh oh, the king isn't gonna like this!

Hope you had a great Field Day!

<p><i>The Blurb</i> is published monthly by and for the members of The PHIL-MONT MOBILE RADIO CLUB, Inc., whose purpose is to promote Amateur Radio in general, and Mobile Radio in particular. Copying and quoting is permitted with a credit line. We gladly exchange publications with other amateur radio clubs. Requests should be sent to the Editor. Subscriptions are available to non-members for \$12, addressed to the Treasurer.</p> <p>Editor: Rick DeVirgiliis ND3B nd3b@arrl.net 215-908-7225</p> <p>Club Archivist: Gwen Patton NG3P ng3p@arrl.net 610-630-9862</p> <p>Labels and mailing: WB3KOJ & WB3KOH</p> <p>Submissions deadline: All copy must be in the hands of the Editor by the 20th of the previous month.</p>	<p>Directors:</p> <p>W3AOK (09) WA3KIO (09) N3XKE (09) N3MT (10) KB2ERL (10) KB3IV (10) NS3K (A)</p>	<p>Contact Phil-Mont: P.O. Box 88 Abington, PA 19001 http://www.phil-mont.org Webmistress: Maggie K3XS k3xs@arrl.net</p> <p>For club information: Contact any club officer, or the repeaters listed below. Address or club directory changes and articles for the membership e-mail list should be sent to: wb3koj@comcast.net</p>
	<p>Sunday Morning Net Schedules</p> <ul style="list-style-type: none"> • 2 Meter/ 70cm Net..... at 0930L on W3QV repeater • 10-on-10 Net at 1000L 28.393 MHz USB (±QRM) • 75 meter Net at 1020L 3.993 MHz LSB • ARES at 2100L on the W3QV repeater 	

<p>Committees</p> <p>Archives: NG3P Audit: NS3K Awards: open Blurb folding: WB3KOJ & WB3KOH Directory: WB3KOJ</p>	<p>DX: N3MT Emerg. Coord: K3HWE Field Day: KE3QB Internet: K3XS Membership: N3XKE Net Control: KB3IV Publicity: W3RM</p>	<p>Program: Club VP Public Service: KE3QB Refreshments: W3AOK Repeater: W3AOK Skywarn: WX3PHI Sunshine: N3GLU</p>	<p>TVI: W3VVS VE Program: NS3K W3AA Trustee: WU3I Welcome: N3UBV Youth: N3MT</p>
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All visitors are welcome!

The club meets at 7:30 PM on the *second* non-holiday Wednesday each month except July and August at **Roxborough Memorial Hospital, 5800 Ridge Avenue, Philadelphia, PA 19128**
Maps and directions are available at www.phil-mont.org

License Examinations are held on the fourth **non-holiday Thursday** each month at

Community Ambulance Association, 1414 E. Butler Pike, Ambler PA 19002

Registration begins at 7:00 P.M. Applicants should contact Jim McCloskey NS3K at 215-275-2979 or jmccloskey@msn.com for the latest information.

Club Stations W3QV/R: The Jim Spencer Memorial Repeater System

Ridge & Port Royal Avenues, Philadelphia, PA **Trustee: W3RM**

147.03 MHz + PL 91.5 Hz 444.80 MHz + PL 186.2 Hz

Reach us on EchoLink through WU3I-L

W3EM: Field Day/special event station Trustee: W3VVS

The Officers

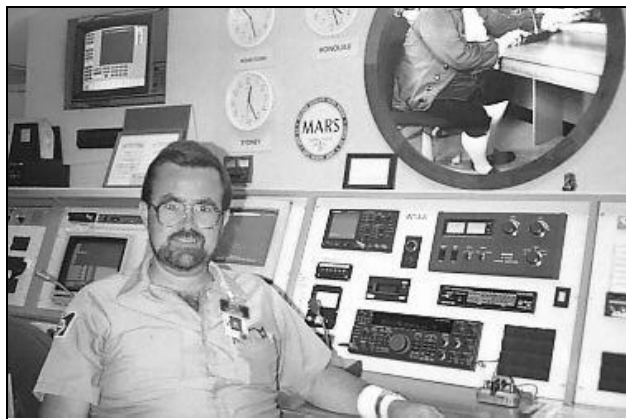
President: WU3I Steve Hoch, 546 Monastery Ave, Philadelphia PA 19128 wu3i@arrl.net

Vice President: N3QV Eric D. Marano, PO BOX 233, Skippack PA 19474 n3qv@arrl.net

Secretary: W3STW Al Tribble wstw@juno.com

Treasurer: W3RM Richard A. Moll roger.mike@verizon.net

Asst. Treasurer: N3MT Michael P. Taraborrelli michaelmt_1999@yahoo.com

The Prez Sez...

Here it is July and the Independence Day celebration is upon us. Please take a minute to remember what INDEPENDENCE DAY means to all. The birth of our Nation and the Trials and Tribulations of the years. All the conflicts our Nation has been involved in all over the Globe. Many things have happened in the past, and some only recently, but we are still ONE COUNTRY united in the same spirit of FREEDOM. Take the opportunity to seek out someone who has served his Country and thank him for his Heroic Sacrifice.

Have a great Independence Day and a wonderful summer.

de Steve, WU3I



On Saturday June 13th we had a total of 6 candidates take a total of 10 elements. We finished with 3 new Techs and 2 upgrades to General. The VE's were: Jim NS3K, Gene N3XKE, and Richard W3RM. The next session will be on Thursday, June 25th at 7:00 pm. (*Unfortunately too late for this issue.* – ed.)

**July Birthdays**

- 02 Ted Katz - N3OWM
Alice Popovic (XYL W3AOK)
- 03 Nicole Bohlander (XYL WA3KLR)
- 10 Natalie Gordon - WB3KOH
James Perry – KJ3P
- 12 Grace Smith (XYL K3GBA)
- 14 Larry Clifford - W3UY
- 23 Art Weiner - WX3PHI
- 25 Jinny Haring - W3IIN
- 27 Robert Hill – KB3HNB
- 29 Jim Larkin - KA2FFP
- 31 Steve Hoch - WU3I

Membership Stats

At press time P.M.R.C. had:
 89 Full Paid Members
 9 Family Members
 3 Youth Members
 2 Honorary Members
 0 Pending Members

From the Secretary

PMRC Board Meeting – June 3rd, 2009

President Steve, WU3I, opened the meeting at 2005 hours attending the meeting were Bill W3AOK, Bob KB2ERL, Fred WA3KIO, Ed KB3IV, Eric N3QV, Dick W3RM and Al W3STW.

Dick, Club Treasurer, gave a brief report on the Club's finances. The Board accepted the report without any changes. Dick says he will announce the winner of the Jack Haring Scholarship during Field Day.

Ed, Net Control Chairman, reports the net control operator schedule has changed to include two new members. Watch the Blurb and stay tuned to the repeater for information regarding the Club's Sunday morning net change.

Now that the weather has improved, Bill, W3QV repeater Chairman, reports the antenna check and paint project can move forward. Bill reports he will get the necessary material for the Club's participation in the June 7th TD bike race (an old Core's State bank event), thank you Bill.

Old Business: Al, Secretary, will pursue the task of finding a place that will host the Club's sixtieth anniversary luncheon. Bob KB2ERL, asked about the W3AA sixtieth anniversary certificate. The certificate has been designed and a QSL card is in the design stage.

The web page needs a revision. Steve will contact Maggie K3XS, Web Mistress, to discuss the needed changes that will bring the web page up to date.

New Business: Shall we get involved with the 150th anniversary of the Philadelphia Zoo?

PMRC General meeting June 10th, 2009

President Steve WU3I, opened the meeting at 1942 hours. Steve extended a greeting to all and then

called for committee reports. Dick, Club Treasurer, tells us that last month's bills were paid and that the Club's financial status is good.

Rick ND3B, Blurb Editor, corrected a call sign error printed in last month's Blurb: Rollie's call was printed as K3PWG, it should have been printed as W3PWG. Rick asks that you get your Blurb articles for the July '09 issue to him by June 20th.

A round of applause to John KB3SJV and Dick W3RM; the Club's meeting night falls on their birthday.

Gene N3XKE, membership Chairman, delivered to Al, W3STW, W3AA/60 certificates. In response to "where are the W3AA/60 qsl cards?" well, the cards are still in the design stage. Remember, the mailing address for a W3AA/60 certificate and /or qsl card you give for an HF contact is:

Phil-Mont
P.O. Box 88
Abington, Pa 19001

Processing the S.A.S.E. requests is as follows: the S.A.S.E. would be examined to identify the operator involved. The S.A.S.E. and blank certificate would be turned over to the responsible W3AA/60 operator to fill in date, time, rst, etc. and mailing. Requests for QSL's by S.A.S.E. will be held until a QSL card has been designed.

By the time you read this Field Day 2009 is over and another chance to improve our communicating skills now moves to Field Day 2010. Thanks to all.

Many thanks to Steve for the refreshment table setup; if you need top grade antenna rope for guying and stringing up your latest antenna project see Steve.

No further business to conduct, at 2035 hours Steve turned the meeting over to Bob KB2ERL, for an excellent demonstration of how an amateur radio repeater works.

de Al W3STW, PMRC Secretary

The *Radio Stores* series continues...

WIDE WIDE WORLD

Phil-Mont on Network TV

by Bob Thomas

Pat Weaver was a television program innovator at NBC who conceived the *Today* show, later on produced the NBC "color specials" that finally got color television off the ground, and along the way managed to be father of Sigourney Weaver (a factoid having nothing to do with this story). In 1955 Weaver developed a Sunday afternoon program called *Wide Wide World* that featured live events of popular interest – all television was live in those halcyon days before video recording. Dave Garroway was the host for the program in New York while a vast NBC field crew manned forty cameras and twelve equipment and production vans were deployed around the country to originate a variety of interesting segments from different remote venues every week.

Once again Jim Spencer got wind that something was up in our area, either by virtue of his own sleuthing or because he was widely known as the "go-to guy" when radio support was needed. The producers of *WWW* had scheduled a segment of the show for a Sunday in 1956 to cover a gas balloon ascent featuring Connie Wolf, an internationally-known female balloonist. Phil-Mont already had a solid reputation participating in that activity from tracking local balloon flights with our mobile units, so we were included in the program. Now the balloon we are talking about here did not incorporate a relatively safe propane burner to generate hot air for buoyancy; it used gas: that is, flammable, explosive natural gas, right out of the pipe. We were familiar with the filling process, which had to take place in a field on Egypt Road to get where a high pressure gas main was accessible.

When I arrived at the field the balloon was half-inflated. Jim was already there with Phil-Mont's first mobile unit, a small enclosed two-wheel yellow trailer with the club call, W3RQZ/3, emblazoned on each side in tall red letters, and equipped with basic

communications gear inside. NBC had planned an introductory segment at the field for an interview with Connie and to show the balloon being inflated with the RQZ/3 trailer in the background. Then they planned to cut away to other parts of the program, returning later for the ascension after the balloon had been fully inflated. What was not planned, however, was a ferocious wind that not only complicated the inflation process, but ruled out any possibility that an ascent would be made on that afternoon! Although the high wind had not been planned, its possibility had been foreseen by NBC's veteran field producer who had rented a crane with an 80-foot boom. Suspended from the crane's cable, but now resting on the ground, was a wood platform just large enough for an RCA TK-30 Field Camera and a cameraman.

When it came time for the program to return to our site, the fully inflated balloon was buffeted mercilessly by the gale as a dozen or so ground crew tried their best to keep it under control. We had a portable TV receiver in the trailer so we were able to watch the off-air program. Back in New York, Garroway announced with regret that the writhing balloon could not be safely released but, in the interest of full disclosure, they would now *simulate* what an actual ascent looks like to the flight crew in the balloon's basket. With that, the crane operator was cued, he threw the cable drum into gear and, with the roar of the crane's engine, the camera platform leapt into the air. As we watched the broadcast on our receiver, the scene depicted by the rapidly ascending wide-angle camera shot was just as though the viewer was in the rising balloon basket.

That concluded our segment of the show. The TV crew began knocking down their setup, all that expensive gas was released from the balloon into the atmosphere, and Jim and I were off for home. So ended Phil-Mont's debut on network TV!

Beginner's Corner

- or -

Things your mother never told you about ham radio.

To our new members: Many of our names on page 2 have an email address and you can write to us with your questions. You can also call these members if you prefer to telephone:

Dick, W3RM - 215-659-4488

Steve, WU3I - 215-483-7306

Rick, ND3B - 215-908-7225

Safety first! Soldering involves high heat, molten metal and nasty fumes. Use safety glasses and lots of ventilation!

Now the fun stuff!

WHAT IS THE SOLDERING PROCEDURE?

1. Use the right tools

- **Soldering Iron and tip**
- **Wattage** - 15 watts can be used for very small components and pads. 30 - 50 watts for larger components. Controlled heat irons are the best, but good results can be obtained from the inexpensive fixed temperature irons that have the proper tip wattage.
- **Larger irons and "guns" should not be used** except to solder very large components. Do not use these high power instruments on electronic assemblies or printed circuit boards.
- **Soldering Iron Tip** - The tip should be small enough so that the joint being soldered can be easily seen, but large enough to quickly transfer the heat required to raise the joint temperature to the solder melting point. The author prefers a chisel (spade) tip that is between 0.05" and 0.08" across the spade for general purpose soldering. Smaller tips are required for small pads and surface mount components. The larger tip provides more heat which is required for desoldering using desoldering braid or solder pump.
- **Solder**
- **Do not use acid core solder, corrosive fluxes, or conductive fluxes on electronic equipment.** Use mild fluxes such as contained in rosin core solder or rosin flux.
- **Use the correct alloy.** **SN63** is excellent for small, heat sensitive components and printed circuit board pads. **SN60** is an inexpensive excellent all-around solder. Both are available with flux cores (usually rosin). Some fluxes are sticky once activated by heat and thus should be cleaned off the board once soldering is completed since they will accumulate dust/contaminants that may cause an unwanted short or low resistance path at a later time.
- **Use the correct diameter of solder** especially for small component attach points. (Author's opinions below)
- **0.020" dia.** (25 gauge/.05 cm) rosin core or smaller - Very small. **Excellent for soldering very small printed circuit (PCB) board pads and hand soldering surface mount components.** Too small for a general purpose bench solder. It can take excessive heating time to apply sufficient solder to larger joints. The author has a small roll of 0.15 dia. solder on his bench but uses it very infrequently.
- **0.031" dia.** (21 gauge/.079 cm) rosin core - **An excellent all around solder for printed circuit boards and general kit building/electronic repair.** Inexperienced users may have some difficulty from forming solder bridges between pads on junctions spaced 0.1" or less such as PCB integrated circuit pads. This is the author's favorite size and is plentiful in his shop.
- **0.040" dia.** (19 gauge/0.1 cm) rosin core - **Good for larger connections** like tinning or connecting 14 gauge or larger wires to terminal strips, connecting multiwires. Not good for PCB soldering because excessive solder can be easily applied to pads increasing potential for undesired solder bridges between points. The author has it available on his bench, but hardly ever uses it.
- **Larger diameter solder should be reserved for soldering large items** like very large stranded wires, soldering large items to aluminum chassis, etc. The largest

the author has is 0.047" dia. and he has never needed anything larger for electronics projects. It is very seldom used.

- **Hand Tools and supplies**
- **Side-cutters or "dikes"** - Miniature side-cutters with spring to hold the jaws open are ideal. The author prefers 5 - 5 1/2-inch for small wires and 6-inch or greater for the larger wires. Most of the small cutters are for soft wire and can be damaged cutting hard wires such as aluminum, iron or steel.
- **Medium long-nose pliers** - The same length as the side-cutters work fine. The pliers should have round points so that component leads can be formed around them when necessary. A pliar with 4" or longer nose is very useful for many hard-to-reach applications.

Desoldering equipment - A roll of desoldering braid and a vacuum desoldering tool will cover most desoldering requirements. The desoldering pump is best for removing large amounts of solder, and the braid for removing small amounts and cleaning up solder holes in PCB's. The author often uses a pin vise with a #65 drill bit to clean solder pad holes.

- **Sponge** - A damp sponge is very useful to keep the soldering tip free from excess solder and contamination. Special solder tip cleaning pastes are also available and do a good job of removing oxidized material from soldering iron tips.
- **Wire brush** - A wire brush is useful to remove oxidation that may coat the soldering tip after prolonged service. Be sure and tin the tip immediately after brushing. Steel wool can also be used to clean the tip as well as tarnished/contaminated component leads and surfaces to be soldered.

2. PREPARE THE SURFACES TO BE SOLDERED

PCB's and surfaces. A thin film of oxide forms on bare copper that will be detected as surface dullness and darkening of the copper. Thus, if bare copper is to be soldered, it is very important to clean it with

fine (0000) steel wool or equivalent. The surface should be bright and shiny.

- **Tinned surfaces do not normally need to be cleaned with steel wool**, but all contamination like dirt, oil, etc., must be removed. Rubbing alcohol or detergent and water (if no components have been mounted) are good liquids to use. **Use steel wool or fine sandpaper to clean leads of components stored for long periods.** Some components, especially old resistors and capacitors, will have tinned leads that look dull rather than shiny. It is a good idea to use steel wool to clean them before soldering.

3. MOUNTING THE COMPONENTS ON A PCB

- **Mount components on non-foil side with leads protruding through the board to the copper side.**
- **Place components against the board.**
- **Extend leads from component so that they are stress relieved** (see Figure 1). Bends should be at least two lead diameters from the component. Minimum inside radius of the bend should be equal to a lead diameter. Part identification should be visible with the part in place.

4. PREPARING THE SOLDERING IRON TIP BEFORE SOLDERING

- **The solder tip must be applied to the joint at such an angle that the point of contact can be observed during the soldering process.** This is generally at about a 45° angle.
- **The soldering tip must be clean and freshly tinned before soldering.** It is extremely important that a new, never been heated tip be tinned immediately upon it reaching the temperature that melts solder. Tinning is accomplished by applying fresh solder and flux to the tip and allowing all soldering surfaces to become coated with solder. If tinning is not done, then the tip will become oxidized and it will be impossible to solder a good joint. This oxidization is often difficult, if not

impossible to remove. Copper tips (copper color) can be filed, but do not file a tip that has been plated (silver color). The tip should be allowed to cool and then brushed vigorously with a wire brush until the dark black/brown oxidized material is removed. Sandpaper or a fine file may be used to assist in this process. Then reheat and tin as stated above. Plated tips should not be filed or sanded.

- **If the tip has already been tinned and has no oxidation, then clean the tip by wiping on a damp sponge** or other suitable material before each connection is made.
- **Place a very small globule of fresh flux-core solder on the tip surface** that will be used as the point of contact with the parts to be soldered.

5. APPLY THE CORRECT AMOUNT OF HEAT AND SOLDER

- **The soldering iron tip should be applied firmly to the metal part having the greatest mass** while also touching the part to be soldered to it.
- **Apply heat until both the parts to be joined are sufficiently hot to melt the solder.**
- **Quickly apply solder adjacent to the tip, but not on the tip (Refer to Figure 5).** The solder should flow quickly around the components. Withdraw the tip as soon as the joint is complete to avoid overheating the molten solder. The soldering process should be completed within 2 seconds. If it takes up to 5 seconds then the tip is too small, the iron too small, or the technique incorrect. The soldering tip should be at a temperature of about 650^oF (343^oC).
- **The surface temperature of both metals being soldered must be above the solder melting point** to expedite efficient wetting. Solder should not be permitted to flow onto a surface cooler than the solder temperature; this will cause "cold" joints.

producing a smooth, shiny surface feathering out to a smooth thin edge.

- **A rounded, lumpy, dull, irregular, or granular appearance indicates improper solder application.**

6. DO NOT ALLOW JOINT TO MOVE

- **Once the joint is soldered, it is imperative that none of the soldered parts be allowed to move until the solder solidifies.**
- **Premature movement will cause the solder to fracture at the component to solder interface, thereby producing a "fractured" joint.** These joints can be expected to fail later while in service.

7. FINISHING THE SOLDERED JOINT

- **Cut off excess leads (Refer to Figure 6).** Do not clip into the feathered solder edge. Leave a slight headroom so that the solder is not separated from the lead by the shock forces imparted during cutting.
- **Clean soldered board board with flux remover or alcohol** after all joints have been soldered and leads clipped. This may not be necessary with some fluxes.

To be continued...

By: David L. Pippen
dpippen@nmsu.edu
Assistant College Professor
New Mexico State University

Bob KB2ERL, and Ralfy K3FXR, invite everyone to join in a Monday night net on 147.315 MHz (PL is 156.7) at 2000 Local time.

**Congratulations to John KB3SJS, on his first turn as net control on Father's day.
Well done John, you're hired!**

Properly applied solder will melt and flow smoothly around the surfaces being soldered

W3NE's 1950s shack. Thanks Bob.

At upper left are a 2-meter 40W AM transmitter and 2M tunable converter on top of my first receiver - Hallicrafters S-40. To right of them are a Jones Micro SWR meter, Johnson Match Box, VFO, and Viking-II and a Collins speaker. Lower right (l.-r.) Heath 3" scope (partially hidden behind mike stand, Collins 75A-3, early 10M crystal-controlled intercom receiver for Phil-Mont; Heath VTVM; QZO-designed Conelrad receiver; 6M transceiver from GE Ham Tips. Turner 99 mike. Them was the days!

There's radio-activity for everyone this month, from EME to CW, RTTY and of course phone. I listed a couple that caught my eye in the calendar. Check the July *QST* events and contests for the full rundown.

Eli "Is there a fourth of July in Canada?"

Iceman "Of course not you knuckle head!"

Eli "Well geez ... what comes between the third and the fifth?"

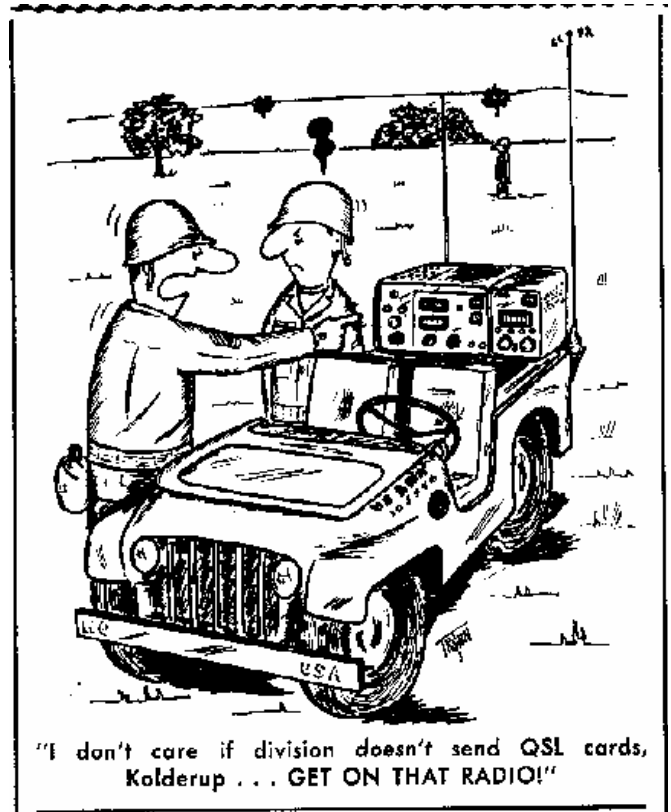
A horse walks into a bar. The bartender says "hey pal, why the long face?"

Eli "I played golf with Einstein once."

Iceman "Was he any good?"

Eli "Well sure ... in theory!"

Stop by 28.480 any night at 2000L and meet Kurt, NN3C and other local 10M enthusiasts.



de WB3KOJ - Thanks Don!

For Sale:

Double Braided Dacron Dipole Rope now in stock. 3/16 diameter. Black in color. Will cut to requested length. High stretch resistance. Strength: Excellent, Resistance to abrasion: Excellent, Resistance to chemicals: Very good, Acids: Good. Sunlight resistance: Excellent, Shock load: Excellent. Does not float. Seal ends with heat. Resistant to mildew. Breaking strength 630 Pounds. \$0.14 per foot

Also:

Ameritron AL-811H amplifier Factory Stock with copy of manual. New \$900.00 Sale \$650.00

Contact Steve, WU3I, at 215-605-6074 or wu3i@arrl.net.

Please feel free to forward this info to other clubs of which you are a member.

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July at PMRC...

- 1st Wed -Canada Day**
- 4th Sat - Independence Day**
- 5th Sunday - W3STW NCS**
- 10th Friday - FISTS Summer Sprint**
- 12th Sunday - N3OWM NCS**
- 19th Sunday - KB3IV NCS**
- 23rd Thur - VE test session**
- 26th Sunday - K3XS NCS**

There are no meetings in July or August.

And don't forget the **ARES** net every Sunday night at 2100L on the club repeater. Larry, K3HWE, wants to hear from *you!*

First Class Mail

The Phil-Mont Mobile Radio Club, Inc
641 Kismet Road Philadelphia PA 19115

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